CLAIMS

1. A peptide containing at least 6 amino acid residues and having at least 70% homology with part or all of the sequence

AEFHRWSSYMVHWK.

2. A peptide comprising or consisting of the sequence YMVH or MVHW or VHWK and having at least 70% homology with part or all of the sequence

AEFHRWSSYMVHWK.

3 A mixture of the peptide of claim 1 or claim 2 with another peptide having at least 4 amino acid residues and having at least 70% homology with the β-amyloid precursor sequence

DAEFRHDSGYEVHHQK.

4. A probe consisting of the peptide of claim 1 or claim 2 or the mixture of claim 3, labelled with a signal molety, or immobilised on a support.

5. A compound which inhibits a biological activity of the peptide of claim 1 or claim 2 or the mixture of claim 3.

6. A compound as claimed in claim 5, which is capable of crossing the blood-brain barrier.

7. An antibody to the peptide of claim 1 or claim 2.

8. An antibody as claimed in claim 7 which is of the IgG class.

9. An antibody fragment or chimeric or humanised antibody comprising variable regions of the antibody of claim 7 or claim 8.

10. A method of preparing a composition for treatment of disorders of the central nervous system or stroke or cancer, which method comprises bringing a compound according to any one of claims 5 to 9 into a form for human administration.

11. A method of preparing a composition for controlling cytoplasmic calcium ion concentration *in vivo*, which method comprises bringing a compound according to any one of claims 5 to 9 into a form for human administration.

23. A method of treating a patient suffering from a disorder of the central nervous system or stroke or cancer, which method comprises administering to the patient a compound according to claim 17.

24. A method of treating a patient suffering from a disorder of the central nervous system or stroke or cancer, which method comprises administering to the patient an antibody according to claim 20.

25. A method of controlling cytoplasmic calcium ion concentration *in vivo*, which method comprises administering a compound according to claim 17.

26. A method of controlling cytoplasmic calcium ion concentration *in vivo*, which method comprises administering an antibody according to claim 20.

27. A peptide as claimed in claim 12 or claim 13, which peptide contains no more than about 14 amino acid residues.

28. A peptide as claimed in claim 12 or claim 13, which peptide does not form part of a larger protein having homology with the AChE molecule.

29. A peptide as claimed in claim 12 or claim 13, which peptide is a fragment of the AChE molecule.

30. A peptide as claimed in claim 12 or claim 13, which peptide has been chemically synthesised. --